Amendments to the CLAIMS:

Without prejudice, this listing of the claims replaces all prior versions and listings of the claims in the present application:

LISTING OF CLAIMS:

1-21. (Canceled).

22. (Currently Amended) A method for transmitting useful optical signals, comprising the steps of:

providing an optical transmission device between a first transceiver and a second transceiver, the first transceiver including at least one of a first signal source and a first signal sink, the second transceiver including at least one of a second signal source and a second signal sink, the optical transmission device including at least one normal segment and at least one alternative segment, the at least one normal segment and the at least one alternative segment running parallel;

intercoupling the at least one normal segment, the at least one alterative segment, the first transceiver and the second transceiver via at least two coupling nodes;

generating, receiving and recognizing optical test signals section by section via at least four test signal nodes, the optical test signals being in addition to the useful optical signals and including at least a first [[type]] of the optical test signals, a second [[type]] of the optical test signals and a third [[type]] of the optical test signals, the third [[type]] one including the optical test signals that are not of the first [[type]] one and not of the second [[type]] one, the at least four test signal nodes including at least two test signal nodes and at least two additional test signal nodes, the at least two test signal nodes being arranged at ends of the at least one normal segment, the at least two additional test signal nodes being arranged at ends of the at least one alternative segment;

transmitting the optical test signals via the optical transmission device;

detecting a disturbance of the optical transmission device by receiving the third [[type]] one via a test signal node of the at least four test signal nodes; and

switching over between the at least one normal segment and the at least one alternative segment via the at least two coupling nodes,

wherein the step of switching over between the at least one normal segment and the at least one alternative segment includes the step of switching over from a particular normal segment to a particular alternative segment via a particular coupling node, the particular coupling node being coupled to a closest test signal node of the particular normal segment via a control unit, and

wherein the step of switching over from the particular normal segment to the particular alternative segment occurs when, before receiving the optical test signal of the third [[type]] one, the closest signal node of the particular normal segment receives the optical test signal of the first [[type]] one.

23. (Previously Presented) The method according to claim 22, further comprising the step of:

configuring the at least four test signal nodes as at least one of transit nodes, inception nodes and end nodes.

24. (Currently Amended) The method according to claim 22, further comprising the steps of:

providing the optical transmission device with at least one segment, the at least one segment including the at least one normal segment and the at least one alternative segment;

recognizing the disturbance of a particular segment of the at least one segment; and

transmitting the optical test signal of the second [[type]] one on all segments of the at least one segment excluding the particular segment.

25. (Previously Presented) The method according to claim 22, further comprising the step of:

transmitting the optical test signals by the test signal node as a function of the optical test signals received by the test signal node.

26. (Previously Presented) The method according to claim 25, further comprising the step of:

influencing, via a superordinate control, the transmitting of the optical test signals by the test signal node.

27. (Previously Presented) The method according to claim 25, further comprising the step of:

configuring the test signal nodes via a superordinate control.

28. (Previously Presented) The method according to claim 25, further comprising the step of:

supplying information, via the test signal nodes to a superordinate control, relating to the optical test signals received by the test signal node.

29. (Previously Presented) The method according to claim 28, further comprising the step of:

using a coupling node that adjoins the test signal node as a superordinate control.

30. (Previously Presented) The method according to claim 22, wherein the transmitting of useful optical signals is accomplished bidirectionally.

31. (Previously Presented) The method according to claim 22, wherein the step of transmitting the optical test signals includes the step of bidirectionally transmitting the optical test signals.

32. (Previously Presented) The method according to claim 30, wherein the bidirectionally transmitting of useful optical signals includes the step of using separate optical line fibers for bidirectionally transmitting useful optical signals.

33. (Previously Presented) The method according to claim 32, further comprising the step of:

transmitting the optical test signals in both transmission directions together with transmitting the useful optical signals in a particular direction.

34. (Previously Presented) The method according to claim 33, further comprising the steps of:

transmitting a multiplicity of useful signals via a multiplex operation on each segment of the optical transmission device in each direction; and

assigning to each transmitted useful signal its own optical test signal.

35. (Currently Amended) The method according to claim 34, further comprising the steps of:

detecting a state "test signal not present" using a test signal level detector of the test signal node in response to an undershooting of a level of the optical test signal; and

transmitting the third test signal ~~of the third~~ type by the test signal node in at least one direction.

36. (Currently Amended) An optical network, comprising:

a first transceiver, the first transceiver including at least one of a first signal source and a first signal sink;

a second transceiver, the second transceiver including at least one of a second signal source and a second signal sink;

an optical transmission device including at least one normal segment and at least one alternative segment, the optical transmission device being arranged between the first transceiver and the second transceiver, the at least one normal segment and the at least one alternative segment running parallel;

at least two coupling nodes intercoupling the at least one normal segment, the at least one alternative segment, the first transceiver and the second transceiver, the at least two coupling nodes being adapted such that the at least one normal segment is bypassed by a switchover of the at least two coupling nodes to the at least one alternative segment; and

at least four test signal nodes disposed at ends of the at least one normal segment and disposed at ends of the at least one alternative segment, the at least four test signal nodes including a test signal generator and a test signal receiver, the test signal generator generating at least a first [[type]] [[of]]test signal, a second [[type]] [[of]] test signal and a third [[type]] [[of]] test signal, the third [[type]] [[of]] test

signal including all signals that are not the first [[type]] [[of]] signal and not the second [[type]] [[of]] signal, the test signal receiver receiving the first [[type]] [[of]] test signal, the second [[type]] [[of]] test signal and the third [[type]] [[of]] test signal for recognition,

wherein a particular coupling node of the at least two coupling nodes switches over between the at least one normal segment and the at least one alternative segment if, by the test signal receiver of a closest test signal node in connection with the particular coupling node, the third [[type]] [[of]] test signal is detected in connection with the first [[type]] [[of]] test signal.

37. (Previously Presented) The optical network according to claim 36, wherein the at least four test signal nodes include the test signal receivers and the test signal generators in both line directions.

38. (Previously Presented) The optical network according to claim 36, further comprising:

a superordinate control system configuring the at least four test signal nodes as at least one of transit nodes, inception nodes and end nodes.

39. (Previously Presented) The optical network according to claim 38, wherein the at least four test signal nodes include signal connections to the superordinate control system.

40. (Previously Presented) The optical network according to claim 39, wherein the superordinate control system controls the test signal generators via the signal connections.

41. (Previously Presented) The optical network according to claim 40, wherein the superordinate control includes a part of an adjoining coupling node of the at least two coupling nodes.

42. (Currently Amended) The optical network according to claim 36, wherein the test signal receiver includes a test signal level detector, the test signal level detector detecting an undershooting of a threshold level of the test signal as a state "test signal not present," thereupon the test signal node transmitting the third [[type]] [[of]] test signal in at least one direction.